

## ABSTRACT

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### **VISUALIZATION OF EARTHQUAKE DATA IN INDONESIA USING PYTHON AND DASHBOARD GOOGLE LOOKER STUDIO WEB-BASED**

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( xiv + 71 + Attachment )

Earthquakes are one of the natural disasters that often occur in Indonesia because Indonesia is located on the Pacific Ring of Fire and is at the confluence of 3 tectonic plates. Earthquake data in Indonesia is already available to the public on the BMKG website, but only in the form of tables that are difficult to read, compare and analyse, and are not yet equipped with visually appealing maps and graphs. So that the data can be processed into information that is conveyed clearly and interestingly, an interactive dashboard was created that displays historical earthquake data in Indonesia from 2009 to 2023 through a website that can be accessed by everyone. The research method applied in this paper is CRISP-DM (Cross-Industry Standard Process for Data Mining). CRISP-DM consists of six stages, namely Business Understanding, Data Understanding, Data Preparation, Modelling, Evaluation, and Deployment. Tools used in this research include Google Colab to preprocess data using the Python programming language, and Google Looker Studio to create a visualisation dashboard. The result of this research is a visualisation dashboard available in the form of a website that can be accessed through <https://sasyyi.github.io/Visualisasi-Data-Gempa-Bumi-Di-Indonesia/>.

Bibliography (2014 – 2024)